

## **IN THE CLAIMS**

This listing of claims will replace all prior versions, and listing, of claims in the application:

### **Listing of Claims:**

1. (Currently Amended): A method for producing a silica aerogel, ~~which comprises~~ comprising:

~~combustion of~~ combusting rice husk ~~until the white~~ to produce rice husk ash is obtained;

dissolving the rice husk ash in aqueous sodium hydroxide[[,]];

heating and stirring the resultant gel mixture to produce a sodium silicate solution[[,]]; adding concentrated sulphuric acid to the resulting water glass solution to convert the sodium silicate to silica and produce a silica hydrogel[[,]];

aging the hydrogel to allow the gel structure to develop[[,]];

displacing the water by subjecting the hydrogel to a C<sub>1</sub> to C<sub>4</sub> alcohol vapor through ~~a repetitive cycle of condensation and evaporation~~ Soxhlet extraction [[,]] to produce an alcogel[[,]]; and

subjecting the alcogel[[,]] to super critical drying with additional alcohol to form an aerogel, wherein the additional alcohol is operable to function as a super-critical fluid, wherein the alcogel and the additional alcohol are placed into a container, wherein the additional alcohol is present in an amount sufficient, as the temperature is raised in the container, to permit a critical pressure to be reached.

2. (Currently Amended): The method according to Claim 1 wherein the rice husk

is combusted at a temperature in the range of 600°C to 700°C with excess air until the ~~[[white]]~~ rice husk ash is obtained.

3. (Currently Amended): The method according to Claim 1, wherein the rice husk ash contains 92 – 97% of amorphous silica and trace amounts of cations.

4. (Currently Amended): The method according to Claim 3, wherein the trace amounts of cations ~~present in rice husk silica~~ are selected from the group consisting of  $K^+$ ,  $Ca^{2+}$ ,  $Mg^{2+}$ ,  $Al^{3+}$ ,  $Fe^{3+}$ , and combinations thereof.

5. (Currently Amended): The method according to Claim 1, wherein ~~[[the]]~~ a purity of silica ~~[[of]]~~ above 98% can be achieved by washing the rice husk in 1M sulphuric acid solution, followed by air drying prior to combustion.

6. (Original): The method according to Claim 1, wherein the amounts of rice husk ash and sodium hydroxide are such as to give a ratio of  $Na_2O:SiO_2$  of between 1:3 and 1:4.

7. (Original): The method according to Claim 1, wherein the ratio of  $Na_2O:SiO_2$  is about 1:3.33.

8. (Previously Presented): The method according to Claim 1, wherein the sodium silicate solution contains from 8 to 10% by weight of  $SiO_2$ .

9. (Original): The method according to Claim 8, wherein the sodium silicate solution contains 9% by weight of SiO<sub>2</sub>.

10. (Previously Presented): The method according to Claim 1, wherein the hydrogel is aged for a period of up to 5 days.

11. (Previously Presented): The method according to Claim 1, wherein the C<sub>1</sub> to C<sub>4</sub> alcohol is methanol or ethanol.

12. (Currently Amended): The method according to Claim 1, wherein any produced hydrophilic aerogels that are hydrophilic are converted to hydrophobic aerogels by alkylation.

13. (Cancelled)